

**WHAT IS CLAIMED IS:**

1. A method of processing a data frame at a node in a wireless Local Area Network, the method comprising:  
5 receiving a first part of a transmitted frame;  
identifying, within that first part of the transmitted frame, a frame destination address; and;  
terminating reception of a second part of the transmitted frame when it is determined that the frame destination address indicates that  
10 the transmitted frame is not intended for that node.
2. The method of claim 1, wherein the first part of the transmitted frame further includes a transmission duration indicator, which indicates the expected duration of exchange of information related to the  
15 transmitted frame, after the transmission thereof.
3. The method of claim 2, further comprising:  
terminating reception of the said second part of the transmitted frame only when the transmission duration indicator indicates that the  
20 said expected duration of transmission is less than a predetermined threshold
4. The method of claim 3, wherein the first part of the transmitted frame contains a PLCP (Physical Layer Convergence Procedure)  
25 header including a frame payload length indicator, and a MAC (Medium Access Control) header that includes the frame destination address along with the transmission duration indicator and an indication of the frame type.
- 30 5. The method of claim 1, wherein the node is switchable between first and second node operating modes, the transmitted frame being

receivable in the first operating mode but not receivable in the second node operating mode.

5        6.        The method of claim 4, wherein the node is suitable between first and second node operating modes, the transmitted frame being receivable in the first operating mode but not receivable in the second node operating mode.

10        7.        The method of claim 6 wherein the method further comprises: switching between the first and second modes for a time period dependent upon the frame payload length indicator.

15        8.        The method of claim 7, wherein the method further comprises: switching back to the first mode after the time period dependent upon the frame payload length indicator has expired.

9.        The method of claim 5, wherein the second mode is selected from the list comprising:  
20                a low power consumption mode;  
              a current channel usage detection mode; and  
              an alternative channel search mode.

25        10.       The method of claim 7, further comprising, following receipt of the transmitted frame at the node or part thereof, the step of calculating a node idle time gap based upon the length of an expected acknowledgement frame sent from the destination address.

30        11.       The method of claim 10, wherein the node idle time gap is further calculated on the basis of a first time gap length between the transmitted frame and an expected acknowledgement frame sent from the destination address.

12. The method of claim 11, wherein the node idle time gap is further calculated on the basis of a second time gap length between the expected acknowledgement frame sent from the destination address and a further transmitted frame.
13. The method of claim 12, wherein the second time gap is at least as long as the first time gap.
14. The method of claim 12, wherein the node idle time gap is further dependent on the sum of the calculated length of the acknowledgement frame and the first and second time gap lengths.
15. A processor within a wireless Local Area Network access node, configured to perform the method step of claim 1.
16. A wireless Local Area Network node including the processor of claim 15.
17. A wireless Local Area Network access node, comprising:  
a receiver adapted to receive a first part of a transmitted frame within the wireless Local Area Network; and  
a processor means configured to:  
(a) detect the frame destination address from the first part of the transmitted frame; and,  
(b) terminate reception of the second part of the frame when it is determined that the frame destination address indicates that the transmitted frame is not intended for that node.
18. A wireless Local Area Network access node according claim 17, wherein the node further comprises:

a timer; and,  
 a switching means for switching between first and second modes of the node in dependence upon an output of that timer.

- 5    19.    A wireless Local Area Network access node according claim 18, wherein the processor is further configured to:

calculate the length of an expected acknowledgement frame sent from the destination address; and  
 determine the first and second time gaps.

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20.    A wireless Local Area Network system including the processor of claim 15.

- 15    21.    A wireless Local Area Network system including the access node of claim 17.

22.    The method of claim 1, wherein the wireless Local Area Network is an 802.11x network.

- 20    23.    A method of processing a data frame at a node in a wireless Local Area Network, the method comprising:

receiving a first part of a transmitted frame;

identifying, within that first part of the transmitted frame, a frame destination address;

- 25    identifying, within the first part of the transmitted frame, a duration field, indicative of an expected duration of exchange of information related to the transmitted frame, after the transmission thereof; and,

- terminating reception of a second part of the transmitted frame  
 30    when it is determined that the frame destination address indicates that the transmitted frame is not intended for that node and the duration field

indicates the duration of exchange of information is less than a predetermined time.